

METHOD AND APPARATUS FOR CONCENTRATING SAMPLES FOR ANALYSIS

Abstract of the Disclosure

- 5 A method for analyzing a gas sample is described. The method comprises providing a gas sample, increasing pressure applied to the gas sample to compress the sample to a smaller volume and provide a pneumatically focused gas sample, and analyzing the pneumatically focused gas sample using any of a variety of analytical techniques. Pneumatic Focusing generally means increasing the pressure of the sample, column or cell to a pressure of from
10 about 100 psi to about 15,000 psi, more typically from about 200 psi to about 2,000 psi. Examples including gas chromatography and absorption spectroscopy are illustrated herein. Numerous other examples could be given. The method is well suited for analyzing gaseous samples, such as ambient air samples, both continuously, and remotely, using computer control. Continuously sampling ambient air provides a method for real-time monitoring of air quality.
15 Continuous monitoring allows for pollutant exposure and allows for the identification of emission sources. The method is also well suited for analysis of breath exhalations from respiring organisms useful in metabolic studies or disease diagnosis.

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